CLAIMS

1. A method and apparatus for analysing the pattern of movements of the thoracolumbar part of the spinal column in a golf swing comprising:

- a plurality of, for example three, measurement value pick-ups which are positioned on the human body, preferably at the spinal column;

- the measurement value pick-ups are preferably ultrasonic measurement value pick-ups for detecting movements three-dimensionally in degrees of angle per transit time measurement, the speed, acceleration and/or the direction of movement of the body measurement points to be sensed during the golf swing;

- the measurement value pick-ups are coupled to a data processing apparatus which processes the recorded measurement values;

- measurement value comparative data from other experimentees are stored in the data processing apparatus; and

- the recorded measurement value data are compared to the measured value comparative data and the measurement result is represented on a display device coupled to the data processing apparatus, so that the observer can recognise the quality of the measured golf swing of the experimentee in relation to other experimentees.

2. A method and apparatus as set forth in claim 1 characterised in that the following parameters are ascertained in the golf swing individually and/or jointly:

- rotation of the lumbar spinal column (alpha1 curve, LSC),
- rotation of the thoracic spinal column (alpha2 curve, TSC),
- sagittal flexion of the lumbar spinal column (beta1 curve),
- sagittal flexion of the thoracic spinal column (beta2 curve),
- lateral flexion of the lumbar spinal column (gamma1 curve), and
- lateral flexion of the thoracic spinal column (gamma2 curve).

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3. A method and apparatus as set forth in one of the preceding claims characterised in that an equilibrium measurement operation in the golf swing is also implemented.

4. A method and apparatus as set forth in one of the preceding claims characterised in that there are provided means (strain gauges, accelerometers), by means of which the club head behaviour, in particular its direction and rotation in the golf swing, is detected.

5. A method and apparatus as set forth in one of the preceding claims characterised in that when the measurement values are recorded a video recording of the experimentee is made and the recorded measurement data and also the video recording can be represented on the display device.

6. A method and apparatus as set forth in one of the preceding claims characterised in that the anteflexion, rotation and lateral flexion of an experimentee in the golf swing are ascertained in various positions in the golf swing, such as for example the address position, the upper reversal point, the hitting point and the final position.

7. A method and apparatus as set forth in one of the preceding claims characterised in that, for the present comparative data, golf swing pattern card recordal or classification allocation is effected, in which golfers of different handicap scores are associated with given card recording values and that categorisation of the experimentee in the overall card recordal is effected on the basis of the measured recorded data.

8. A method and apparatus as set forth in one of the preceding claims characterised in that the classification card recordal comprises a plurality of surfaces and that different surfaces are associated with different performance stages of a golfer.

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9. A method and apparatus for analysing the pattern of movements of the thoracolumbar part of the spinal column in a golf swing comprising:

- a plurality of, for example three, measurement value pick-ups which are positioned on the human body, preferably at the spinal column;

- the measurement value pick-ups are preferably ultrasonic measurement value pick-ups for detecting movements three-dimensionally in degrees of angle per transit time measurement, the speed, acceleration and/or the direction of movement of the body measurement points to be sensed during the golf swing;

- the measurement value pick-ups are coupled to a data processing apparatus which processes the recorded measurement values; and

- the recorded measurement value data, in particular a measurement value curve prepared therefrom, are represented on the display device which is coupled to the data processing apparatus, more specifically preferably in such a way that the observer can recognise the quality of the measured golf swing of the experimentee (Figure 5).